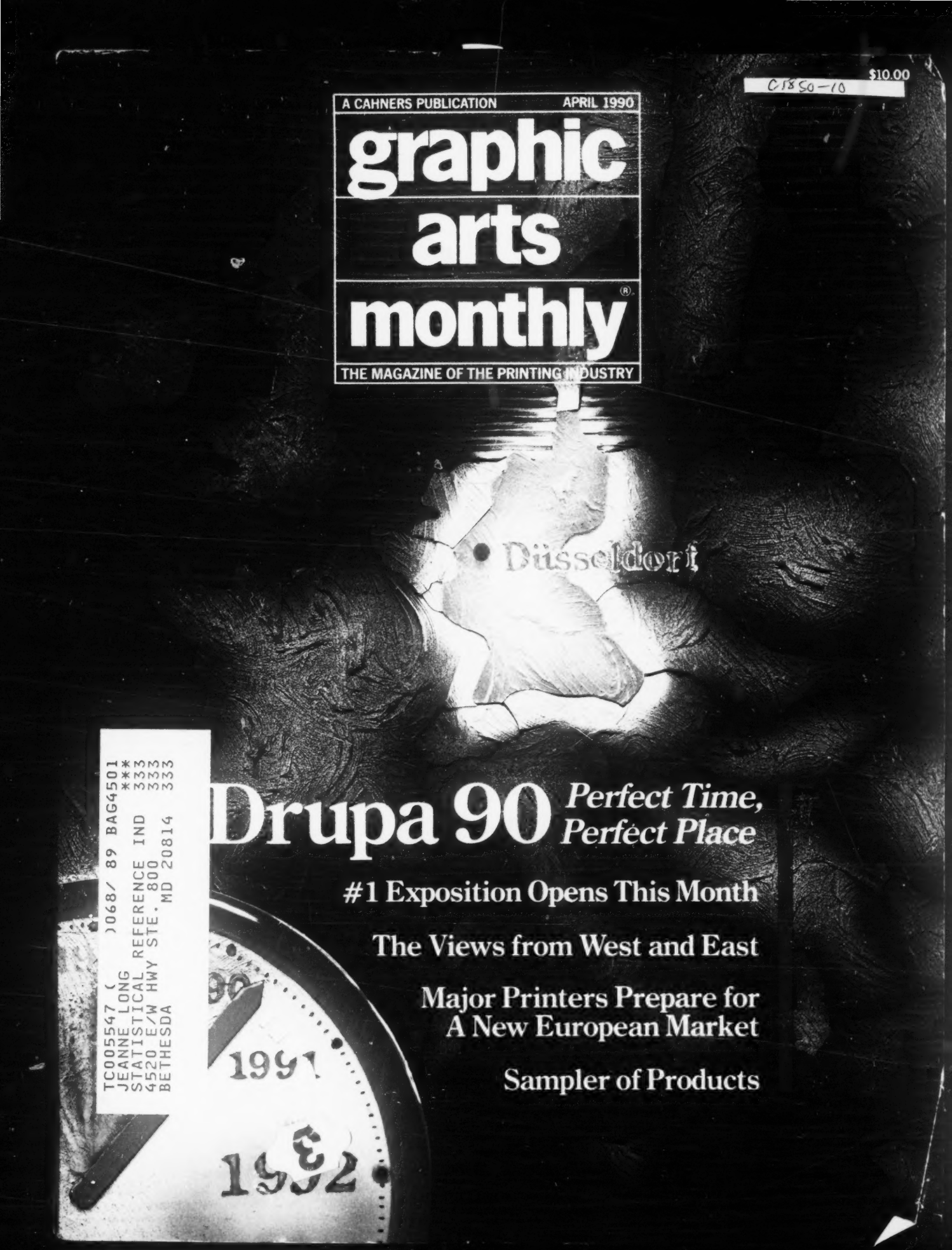
$10.00
C1850-10

A CAHNERS PUBLICATION APRIL 1990

graphic arts monthly®

THE MAGAZINE OF THE PRINTING INDUSTRY



TC005547 ( )068/ 89 BAG4501
JEANNE LONG ***
STATISTICAL REFERENCE IND 333
4520 E/W HWY STE. 800 333
BETHESDA MD 20814 333

Drupa 90 *Perfect Time, Perfect Place*

#1 Exposition Opens This Month

The Views from West and East

Major Printers Prepare for A New European Market

Sampler of Products

VOLUME 62, NUMBER 4

A CAHNERS PUBLICATION APRIL 1990

TOTAL CIRCULATION: 99,585

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

DRUPA 90

page 42

Perfect Time, Perfect Place

By Roger Ynostroza

The industry's biggest show takes place when and where the action is.

39

Western Europe Girds for Change

The dizzy pace at home and in the East poses challenges for businesses throughout the EEC.

42

In Eastern Bloc, Questions Abound

New freedoms came quickly, but now the work begins. A few of the bright spots involve printing.

46

Top French Printer Aims for Export

With Europe moving toward unity, Jean Didier pursues opportunities beyond the borders of France.

60

page 46

Golden Age for German Magazines

Bauer Publishing's streamlined factory is racing to meet reader demands, now and in the future.

68

Eager Exhibitors Raise the Curtain

Some people can't keep a secret; here's a sneak preview of what to expect in Dusseldorf.

77

Offerings from the British Contingent

79

Product Sampler

Major Drupa 90 Exhibitors make important announcements, from direct digital color proofing and direct-to-plate imaging to page make-up systems.

80-90

On The Cover: Illustration by Masato Nishimura

FEATURES

Computing Profits

By Bill Esler

Direct input from equipment, interactivity, real-time operation; data collection leaps forward.

92

Keck Coater Doubles Capacity

Master Printing increases sales and opens new markets.

99

It Ain't Baloney

By George Griffin

They said it couldn't be done. But Casey Printing is smiling at the results of its direct-mail campaign.

100

The Geography Of Print

An examination of the East North Central region in our continuing series.

107

FOCUS ON DESIGN

Decreased Costs, Increased Quality

117

Custom Color Fuels Profits

By Doug Tatum

122

Contents continues on page 5

graphic arts monthly

Vice-President and Publisher
Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editor Earl Wilken

Assistant Editor Lisa Cross

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
William H. Bureau, Kenneth P. Garner, Dick Gorelick, Edgar H. Plagemann, George Griffin, Dr. Gerald A. Silver, Nancy Plowman, Theodore Lustig

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Migdalia Lopez, Assistant

Business Manager
Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator
Jeffrey Rothstein (212) 463-6608

Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager
Dorian Torregrossa

Research Manager
Angela Venturino

Assistant to the Publisher
Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager
Roxanne Wilson (303) 388-4511

Subscriptions/Customer Service
(800) 637-6089

249 W. 17th St., New York, N.Y. 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 242-6987

FOCUS ON DESIGN (cont.)

CEPS Unit Gets New Interpreter 128
By Jeff Randazo

TintPrep Creates Color 130
By Michael Karol

PREPRESS IMAGING

Fast Tracking 132

UPFRONT

Mailbox 10
Editorial 12
Outlook 15
Datatable 15
Potpourri 18
Sales Activity 19
Washington 20
Mergers & Acquisitons 22
News 24
Calendar 27
People 31

COLUMNISTS

Self Advertising 134
George Griffin

Marketing 141
Dick Gorelick

Selling 144
Kenneth P. Garner

Supervising 148
Edgar H. Plagemann

Estimating 152
Gerald A. Silver

Ink 156
Theodore Lustig

Paper 158
William H. Bureau

DEPARTMENTS

New Products 161
Literature 166
How'd They Print That? 168
What's Ahead 170
Index to Advertisers 172
Classified 173

page 134

Graphic Arts Monthly (ISSN 1047-9325), including The Printing Industry and Business Graphics®, published monthly, except January semimonthly, by The Cahners Publishing Company, A Division of Reed Publishing USA, 275 Washington St., Newton, MA 02158-1630. Terrence M. McDermott, President; Robert T. Brawn, Senior Vice President/General Manager; Jerry D. Neth, Senior Vice President/Publishing Operations; J.J. Walsh, Senior Vice President/Finance; Thomas J. Dellamaria, Senior Vice President/Production and Manufacturing; Ralph Knupp, Vice President/Human Resources; Barrie Stern, Director of Art Department. Executive, editorial, and advertising offices: 249 W. 17th Street, New York, N.Y. 10011. Subscription to individuals $69.95 a year ($129.95/2 years) in the U.S.A. and its territories. Canada and Mexico $110.00. All other nations $120.00 ($220.00/2 years), via Airmail $180.00 ($360.00/2 years). Single copies $10.00. Annual Sourcebook $50.00. Second-class postage paid at Denver, Colo. 80206-5800 and at additional mailing office. Printed in U.S.A. Circulation records are maintained at 44 Cook Street, Denver, Colo. 80602. Tel: (303) 388-4511. Graphic Arts Monthly is a registered trademark of Reed Publishing (USA) Inc. © Copyright 1990 by Reed Publishing USA; Ronald G. Segel, Chairman and Chief Executive Officer; Robert L. Krakoff, President and Chief Operating Officer. All Rights Reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage retrieval system, without permission of the copyright owner. Prices for bulk reprints of articles available on request. Copies of back issues are available on microfilm from University Microfilm, 300 N. Zeeb Road, Ann Arbor, Mich. 48106. (ISSN 1047-9325)

POSTMASTER: Please send address changes to Graphic Arts Monthly, Circulation Dept., 44 Cook Street, Denver, Colo. 80206-5800.

Cahners Publishing Company, A division of Reed Publishing USA ☐ Specialized Business Magazines for Building & Construction, Manufacturing, Foodservice & Lodging, Electronics & Computers, Interior Design, Printing, Publishing, Industrial Research & Technology, Health Care, and Entertainment. ☐ Specialized Consumer Magazines: American Baby and Modern Bride.

Is the Recent Rise In Interest Rates Merely a Blip?

Financial market conditions have reversed the downward trend in interest rates. Since the achievement of a "soft landing," as opposed to a full-fledged recession, is somewhat contingent on the easing of interest rates, this trend reversal is cause for concern.

Long-term rates now stand nearly a full percentage point above the early-December level; short-term rates have risen about 20 basis points. These increases occurred despite a quarter-point decline in the Federal Funds rate and a half-point drop in the prime rate.

If the Federal Reserve Board can't be blamed, who or what is responsible? While inflation is partly to blame, much is due to a worldwide increase in interest rates. Since early December, long-term rates are up 1.5 percentage points in Japan, and about a half percentage point in both West Germany and the U.K. Like in the U.S., short-term rates and the prime interest rates are up much less in these countries.

Economic growth is more robust internationally, and, therefore, interest rates are on a normal upward trend. Excessive budget and trade deficits are forcing us into the international capital markets, however, and forcing us to pay the rising international rates.

While the upward pressure stemming from the international scene is not likely to improve substantially in the near future, interest rates should soon be relieved of inflationary pressures. Interest rates commonly fluctuate month-to-month in response to high inflation reports. Following a 6.5% annualized gain in fourth quarter 1989, wholesale prices increased at a 25% annual rate from December to January. However, since most of this price hike stemmed from the soaring food and fuel costs of an unusually cold December, these gains won't be sustained. Thus, this rise in interest rates should turn out to be a mere blip in an otherwise downward trend.

Year-end 1989 data shows very interesting trends in the paper industry. Shipments of coated paper fell 2.6%, to total 7.2 thousand short tons. This represents the first annual decline since 1985. Likewise, the uncoated free sheet market saw its first decline since 1982, dropping 2.6% to 11.0 thousand short tons. In contrast, shipments of uncoated groundwood soared 10.1% to over 1.7 thousand short tons last year—the strongest gain since 1981. Overall, paper shipments (with the exception of coated paper) of all kinds are expected to have a flat year in 1990.

PRINTING INDUSTRY SUPPLY INDICATORS

				Annual Percent Change			
	Dec 88	**Nov 89**	**Dec 89**	**1988**	**1989**	**1990**	**1991**
Employment							
Printing & publishing (1)	1595.6	1623.6	1626.8	3.6	2.9	3.4	2.3
Commercial printing (1)	568.0	581.7	581.8	5.0	3.5	3.2	3.1
Productivity							
Printing & publishing (2)	129.7	146.5	140.8	3.1	7.5	4.0	1.0
Average Hourly Earnings							
Printing & publishing (3)	10.70	11.05	11.07	2.4	3.3	3.1	3.6
Commercial printing (3)	10.95	11.31	11.37	2.1	3.4	3.1	4.3
Paper shipments							
Coated paper (4)	573	616	585	7.3	2.6	4.0	9.8
Uncoated groundwood (4)	125	153	123	7.4	10.1	1.0	0.1
Uncoated free sheet (4)	930	930	964	3.0	-2.6	1.5	0.8
	Q3/88	**Q2/89**	**Q3/89**	**1988**	**1989**	**1990**	**1991**
Graphic Arts Machinery							
New orders (5)	148.8	140.0	121.4	4.8	-5.3	12.8	15.6
Shipments	155.5	177.0	159.6	26.8	4.8	3.0	14.3
Graphic Arts Supplies							
Shipments (5)	139.5	153.3	143.1	6.5	5.2	1.4	5.3

(1) thousands of employees, U.S. Dept. of Labor. (2) index, 1977=100, Cahners Economics. (3) dollars per hour, U.S. Dept. of Labor. (4) thousands of short tons, American Paper Institute. (5) index, 1985=100, NPES. All forecasts by Cahners Economics.

graphic arts monthly

East North Central Region

Measured in printing industry terms, the East North Central region is the reigning champ. These five states—Illinois, Indiana, Ohio, Michigan, and Wisconsin—account for about 22% of the total U.S. printing market (measured by value of shipments). Most of the industry's big names are either headquartered here, have extensive manufacturing facilities here, or both.

Jana Brenning

The Midwest has a reputation for homogeneity and typicalness, and to some extent, the statistics bear this out. Illinois has the highest per-capita income ($11,302) of these states, with a national ranking of 12th; Indiana ranks 30th, at $9,978, a considerably narrower spread than we have seen in some other regions. Proportionate to their population, the workforce in these states is similar in the terms important to the printing industry, i.e., educational attainment, percentage of those in the entry-level age group, and unemployment rate. This area has traditionally been the hub of long-run, big-league printing, and while other areas are gaining (especially California), the East North Central seems placed to remain dominant for years to come.

One worrisome sign in an otherwise solid picture: all of these states are losing population. The Census Bureau measures net migration, that is, population change above and beyond normal birth and death rates. By that yardstick, a total of about 1.7 million people moved out of these five states between 1980 and 1986. This migratory pattern may eventually constrain what has been a pattern of exuberant growth.

That growth is continuing in some parts of the region; PIA shows an annual printing employment growth rate of 47% for Indiana and 35% for Wisconsin. Much of that, though, is due to expansion on the part of Chicago-area printers who want to move at least some of their manufacturing out of Illinois. (Illinois has nearly 3½ times the total industry employment of Indiana.) In Michigan, hard-hit for years by the steady decline of the American automobile industry, "other manufacturing" is actually growing a little *faster* than printing employment, a highly atypical pattern repeated in Illinois.

Facts and figures for this report come primarily from Printing Industries of America, the National Association of Printers and Lithographers, the U.S. Bureau of the Census, Trade and Technology Press of Stamford, Conn. (the publishers of *Printmarkets*, a useful source of industry data) and Graphic Arts Monthly's own, proprietary database.

Reprints of this installation of the Geography of Print may be ordered from Holly Hoffman, GRAPHIC ARTS MONTHLY, 249 W. 17th St., New York, NY 10011.

By Peter Johnston
Special Projects Manager

Regional Overview

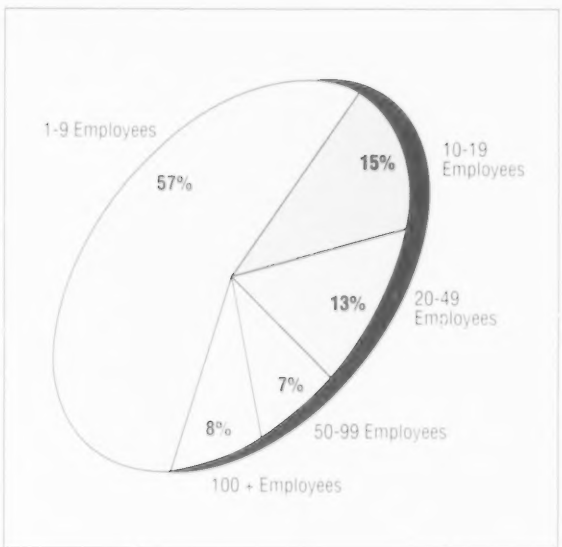
Note that these figures, taken from the GAM database, reflect the universe of printers in its widest sense. In most of the data on the next three pages, a smaller—though nonetheless still very large—universe of printers will be used. This is because we will be concerned with the way the East North Central's printing industry is divided up in terms of the economic characteristics of the region's printing. This requires us to exclude newspapers, in-plant printers, and certain plants who, while clearly printers, are not *economically measurable* as printers.

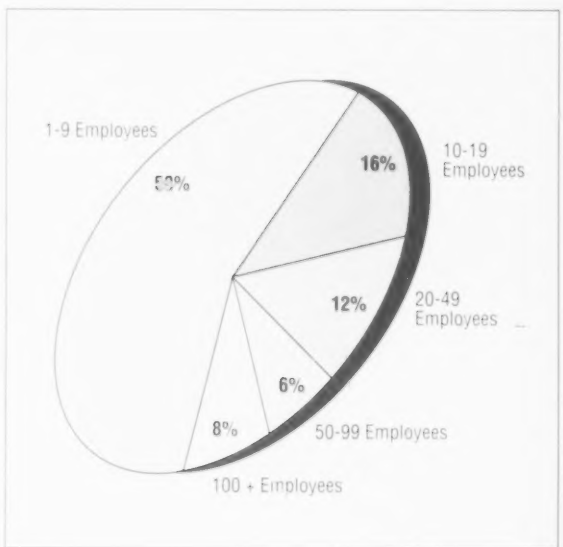
East North Central, Plants by Employee Count

Size	# of Plants	% of Region
1–9 Employees	6,154	57%
10–19 Employees	1,665	15%
20–49 Employees	1,381	13%
50–99 Employees	719	7%
100 + Employees	842	8%
TOTAL	10,761	100%

United States, Plants by Employee Count

Size	# of Plants	% of Total
1–9 Employees	29,815	58%
10–19 Employees	8,381	16%
20–49 Employees	6,428	12%
50–99 Employees	3,147	6%
100 + Employees	3,846	8%
TOTAL	51,617	100%





Charts and graphs by Lisa Hilgers

Plants by Function

Overall, the region accounts for around 22% of the total U.S. industry. Plants pretty well reflect that by function, though there are some variances, especially in newspapers and converters.

Function	# of Plants	% of US Total
Commercial	5,314	20%
Newspaper (w/ Commercial)	382	23%
Newspaper (w/o Commercial)	400	18%
Book & Pub	446	18%
Business Forms	178	23%
Converters	504	27%
Noncommercial	1,677	22%
Trade	933	22%
Quick Printers	927	20%

Equipment Distribution

Equipment	Sites in Region	% of U.S. Total
Color Scanners	530	20%
Sheetfed Presses	7,867	33%
Heatset Web Offset Presses	847	22%
Folders	6,609	21%

When we think of this region we think immediately of long-run heatset web offset and rotogravure lines, and in fact there are plenty of them here. Interestingly, however, a third of the sheetfed presses in the country are in this region—which, coupled with the list of major printers over to the right, would seem to confirm that the East North Central sees an awful lot of printing of every kind, not just long-run web work. There are comparatively few scanners; prepress is more local than printing.

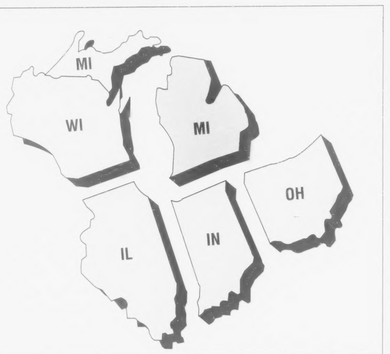
BEST AVAILABLE COPY

Commercial Printing

Value of Shipments

At $14.8 billion, the East North Central region accounts for 22% of the entire nation's output. Of this total, Illinois accounts for 38%, followed by Ohio at 23%. (*Ohio* is correct; see the accompanying list of business forms printers for clarification.) The other three states are smaller—but still of the first magnitude.

State	Sales	%
Illinois	5,600	38%
Ohio	3,500	23%
Wisconsin	2,200	15%
Indiana	1,700	12%
Michigan	1,700	12%
TOTAL	14,700	100%

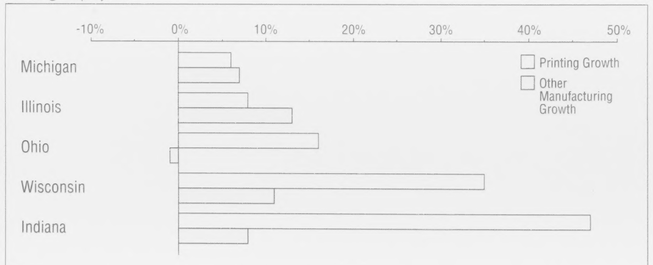


Printing Sites

The distribution of printing sites, not surprisingly, closely reflects the distribution of sales volume (value of shipments). Between them, Illinois and Ohio account for 59% of the manufacturing sites in the region. Notice that Wisconsin, which only has 12% of the sites, has 15% of the volume. This is due to the recent growth of a few very large long-run Wisconsin publication printers.

State	Sites	%
Illinois	2,396	35%
Ohio	1,632	24%
Michigan	1,249	18%
Wisconsin	784	12%
Indiana	737	11%
TOTAL	6,798	100%

Printing Employment



As noted on the cover page, printing industry employment growth in Indiana and Wisconsin has been spectacular, though some of it may reflect flight from Illinois. The "Other Manufacturing" growth category outperformed printing both in Illinois and Michigan, which seems to support the idea that the printing industry is moving further out into the region, away from Chicago.

States	Employees	Population (000)	Rank
Illinois	66,422	11,552	6
Ohio	39,365	10,752	7
Wisconsin	25,035	4,785	17
Indiana	19,826	5,504	14
Michigan	19,824	9,145	8
TOTAL	170,472	41,738	

EAST NORTH CENTRAL

Leading Printers in Major Markets

Tables of leading printers given in order of overall market size. This will vary from region to region.

Company, Location	Sales
BUSINESS FORMS	**Total 4314.2**
Moore Bus. Forms, Glenview, IL	1420.0
Standard Register, Dayton, OH	480.0
UARCO, Barrington, IL	402.0
Reynolds and Reynolds, Dayton, OH	275.0
NCR Corporation, Dayton, OH	245.0
Duplex Products, Sycamore, IL	240.0
Wallace Computer Services, Hillside, IL	205.0
SCM Allied Paper, Dayton, OH	187.0
Star Forms (Bowater), Moline, IL	142.0
CST Group, Wheeling, IL	87.0
Office Electronics, Itasca, IL	87.0
Shade In'o. Systems, Green Bay, WI	70.0
General Bus. Forms, Skokie, IL	48.0
Uforma / Shelby (Miami Sys.), Shelby, OH	33.0
Rotary Forms Press, Hillsboro, OH	28.5
Forms Corp. of America, Spring Grove, IL	27.0
Form Service, Schiller Park, IL	25.0
Pryor Corp., Chicago, IL	20.0
Highland Computer Forms, Hillsboro, OH	19.0
Bedinghaus Business Forms, Cincinnati, OH	18.0
Dataforms, New Berlin, WI	17.8
Atlas Tag & Label, Neenah, WI	17.5
Rotary Multiforms, Detroit, MI	15.4
Carleton Financial Computation, South Bend, IN	14.5
Miami Systems, Cincinnati, OH	13.5
Distributors Stock Forms, Itasca, IL	13.0
Master-Craft Corp., Kalamazoo, MI	13.0
Computer Stock Forms, Greenfield, OH	13.0
Champion Bus. Forms, Glendale Heights, IL	12.5
Neenah Printing, Neenah, WI	12.0
Menasha Corp., Neenah, WI	12.0
J. J. Collins' Sons, Melrose Park, IL	11.0
Stanart Ind. (Litton), Bedford Park, IL	11.0
Perry Printing, Flint, MI	10.0
Rotary Forms Press, Hillsboro, OH	10.0
Elgin Business Forms, Elgin, IL	9.5
Vista Business Forms, Osnieno, MI	8.2
Kal Forms (Graphic Ind.), Kalamazoo, MI	8.0
Doubleday Bros. (Standex), Kalamazoo, MI	7.0
Industrial Printing, Toledo, OH	6.5
Unit Sets (Rotary Forms), Wilmington, OH	5.5
A. J. Kennedy (Graphic Ind.), Elmhurst, IL	5.0
Standard Register / Stanfast, Dayton, OH	4.3
Printing Service (Graphic ind.), Madison Heights, MI	3.0
Huston-Patterson, Decatur, IL	2.5
COMMERCIAL/SPEC.	**Total 1745.8**
Stone Container, Chicago, IL	485.0
Artfaire, Appleton, WI	107.0
United States Playing Card, Cincinnati, OH	88.0
American Greetings Corp., Cleveland, OH	79.0
Gibson Greetings, Cincinnati, OH	59.0
Sleepeck Printing, Bellwood, IL	56.0
Herff Jones, Indianapolis, IN	45.0
American Envelope, Chicago, IL	45.0
Rand McNally, Indianapolis, IN	40.0
C. W. Zumbiel, Cincinnati, OH	36.0
Serigraph, West Bend, WI	34.0
Monarch Marking (Pitney Bowes), Dayton, OH	34.0
Graphic Products, Chicago, IL	33.5
Meyercord, Carol Stream, IL	30.0
Kux Manufacturing, Detroit, MI	27.0
Shaw-Barton, Coshocton, OH	27.0
Doty Litho., Ft. Wayne, IN	26.0
Liturgical Publications, New Berlin, WI	23.0
The John Henry Co., Lansing, MI	21.0
Midprint, Milwaukee, WI	21.0
Beta-Four/Creative, Chicago, IL	20.0
Ft. Dearborn Litho., Chicago, IL	18.0

Company	Sales
Antioch Publishing, Yellow Springs, OH	16.0
Western Publishing, Racine, WI	15.0
Perry Printing/Gugler, Milwaukee, WI	15.0
Reynolds and Reynolds, Dayton, OH	15.0
KCS Industries (Banta), Milwaukee, WI	15.0
Ling Products (Banta), Neenah, WI	15.0
American Ptrs. & Litho, Chicago, IL	14.5
Carqueville Printing, Elk Grove Village, IL	12.0
The Hennegan Co., Cincinnati, OH	12.0
Arandell-Schmidt, Menomonee Falls, WI	10.8
Perfect Plasting Printing, St. Charles, IL	10.5
Fleming Packaging Corp., Peoria, IL	10.0
W. H. Brady Co., Milwaukee, WI	10.0
Brookshore Litho (Banta), Elk Grove Village, IL	10.0
Moebius Printing, Milwaukee, WI	9.0
Duplex Products, Sycamore, IL	9.0
Wintor Swan Assoc., Detroit, MI	9.0
Inland Lithograph, Elk Grove Village, IL	8.5
AGI Inc., Melrose Park, IL	8.5
Neenah Printing (Menasha), Neenah, WI	8.0
Wetzel Bros., Milwaukee, WI	8.0
E&D Web Offset, Cicero, IL	8.0
Huston-Patterson, Decatur, IL	8.0
Industrial Printing Co., Toledo, OH	7.5
KCL Corp., Shelbyville, IN	7.5
Central Printing, Dayton, OH	7.0
Schiele Graphics, Chicago, IL	7.0
Mercury Press, Forest Park, IL	7.0
Oliver Products, Grand Rapids, MI	7.0
The Segerdahl Corp., Wheeling, IL	6.5
Columbia Graphics, Chicago, IL	6.0
Amos Press Inc., Sidney, OH	6.0
Wm. Feather Printers, Oberlin, OH	6.0
Miami Systems, Cincinnati, OH	5.5
Gaylord Printing, Detroit, MI	5.5
Shepard Poorman, Indianapolis, IN	5.5
Great Lakes Litho, Cleveland, OH	5.0
S. Rosenthal & Co., Cincinnati, OH	5.0
Kalamazoo Label Co., Kalamazoo, MI	4.5
Printco, Greenville, MI	4.5
Warner Press, Anderson, IN	4.0
General Business Forms, Skokie, IL	4.0
J. J. Collins' Sons, Melrose Park, IL	3.0
Worzalla Publishing, Stevens Point, WI	3.0
Continental Dataforms, Elgin, IL	3.0
Nielsen Lithographing, Cincinnati, OH	2.5
Standard Pub. (Standex), Cincinnati, OH	2.5
Fenton Press, Addison, IL	2.5
Multi Ad Services, Peoria, IL	2.0
Etheridge Co. (Techtron), Grand Rapids, MI	2.0
Eagle Printing, Coldwater, MI	2.0
Ripon Community Printers, Ripon, WI	1.0
MAGAZINE	**Total 1330.8**
R. R. Donnelley, Mattoon, IL	130.0
World Color Press, Salem, IL	120.0
World Color Press / Crossroads, Effingham, IL	115.0
World Color Press, Sparta, IL	95.0
QuadGraphics, Pewaukee, WI	95.0
QuadGraphics, Lomira, WI	55.0
Maxwell, Mt. Morris, IL	50.0
Perry Printing, Waterloo, WI	40.0
World Color Press / Vern-Wood, Mt. Vernon, IL	40.0
Ringier America, Pontiac, IL	40.0
QuadGraphics, Sussex, WI	35.0
United Color Press, Monroe, OH	31.0
Ringier America, Brookfield, WI	30.0
R. R. Donnelley, Chicago, IL	30.0
Combined Comm., Mendota, IL	28.0
Graftek Press (Devon), Woodstock, IL	28.0
Penton Press, Berea, OH	23.0
S. Rosenthal & Co., Cincinnati, OH	23.0

Company	Sales
Wisconsin Color Press, Milwaukee, WI	22.0
Maxwell, Broadview, IL	20.0
Johnson Press, Pontiac, IL	16.0
Economy Printing Concern, Berne, IN	16.0
Simplicity Pattern, Niles, MI	16.0
Webcrafters, Madison, WI	15.0
Greenfield Ptg. & Pub., Greenfield, OH	14.0
Berlin Industries, Addison, IL	13.0
Graftek Press (Devon), Elkhorn, WI	12.1
Bradley Printing, Des Plaines, IL	12.0
Ringier America, New Berlin, WI	11.0
Regensteiner Printing, West Chicago, IL	10.0
Noll Printing, Huntington, IN	10.0
Johnson and Hardin, Cincinnati, OH	9.0
J. S. Paluch Co., Schiller Park, IL	9.0
St. Croix Press, New Richmond, WI	8.5
The Press of Ohio (Danner), Brimfield, OH	8.0
The Gray Printing Co., Fostoria, OH	8.0
Inco Graphics, Mason, MI	8.0
Cornelius Communications, Indianapolis, IN	7.5
Danner Press (Press/Ohio), Canton, OH	7.0
Benton Review Publishing, Fowler, IN	7.0
Carrollton Graphics, Carrollton, OH	7.0
National Graphics Corp., Columbus, OH	7.0
Desaulniers Printing, Milan, IL	6.0
Times Printing, Random Lake, WI	6.0
Speaker-Hines & Thomas, Lansing, MI	6.0
Perry Printing, Baraboo, WI	5.0
Neely Printing, Chicago, IL	5.0
Warner Press, Anderson, IN	4.0
Braun-Brumfield, Ann Arbor, MI	4.0
Badger Printing Corp., Appleton, WI	3.2
Edwards Brothers, Ann Arbor, MI	3.0
Strathmore Co., Geneva, IL	2.5
McNaughton & Gunn, Saline, MI	2.0
Artcraft Press, Waterloo, WI	1.5
Thomson-Shore, Dexter, MI	1.5
CATALOG	**Total 1015.0**
R. R. Donnelley, Warsaw, IN	120.0
R. R. Donnelley, Chicago, IL	100.0
Alden Press, Elk Grove Village, IL	90.0
R. R. Donnelley, Mattoon, IL	80.0
QuadGraphics, Pewaukee, WI	50.0
Arandell-Schmidt, Menomonee Falls, WI	43.0
Maxwell, Mt. Morris, IL	40.0
Bradley Printing, Des Plaines, IL	39.0
Ringier America, Brookfield, WI	31.0
Noll Printing, Huntington, IN	30.0
Danner Press, Canton, OH	28.3
Moebius Printing, Milwaukee, WI	24.0
Danner Press, Brimfield, OH	20.3
Perry Printing, Waterloo, WI	20.0
Lehigh Press / Cadillac, Broadview, IL	16.0
Wallace Computer Services, Hillside, IL	16.0
Regensteiner Printing, West Chicago, IL	15.0
Berlin Industries, Addison, IL	14.0
Shepard Poorman Comm., Indianapolis, IN	13.0
Gunthorp-Warren Printing, Broadview, IL	13.0
Continental Web Press, Itasca, IL	12.0
National Graphics Corp., Columbus, OH	11.0
General Motors Photographic, Livonia, MI	10.0
Banta Company, Menasha, WI	10.0
Perry Printing, Baraboo, WI	10.0
Gowe Printing, Medina, OH	9.0
Johnson and Hardin, Cincinnati, OH	9.0
Webcrafters, Madison, WI	8.0
Danner Press, Canton, OH	8.0
Central Printing, Dayton, OH	8.0
Times Printing Co., Random Lake, WI	8.0
Speaker-Hines & Thomas, Lansing, MI	7.5
Amway Corp., Ada, MI	6.5
Western Publishing, Racine, WI	6.0
Wisconsin Color Press, Milwaukee, WI	6.0

Company	Sales
Pendell Printing, Midland, MI	6.0
BookCrafters USA, Chelsea, MI	5.6
Kukla Press, Elk Grove Village, IL	5.5
The John Henry Co., Lansing, MI	5.5
Standard Publishing (Standex), Cincinnati, OH	5.0
Ringier America, New Berlin, WI	5.0
Ripon Community Printers, Ripon, WI	5.0
S. Rosenthal & Co., Cincinnati, OH	4.5
Badger Printing Corp., Appleton, WI	4.3
United Color Press, Monroe, OH	4.0
Desaulniers Printing Co., Milan, IL	4.0
J. S. Paluch Co., Schiller Park, IL	3.5
The Gray Printing Co., Fostoria, OH	3.0
Carrollton Graphics, Carrollton, OH	3.0
Phillips Brothers, Springfield, IL	2.5
Thomson-Shore, Dexter, MI	2.5
Strathmore Co., Geneva, IL	2.5
St. Croix Press, New Richmond, WI	2.5
Cornelius Communications, Indianapolis, IN	2.5
Nielsen Lithographing, Cincinnati, OH	2.0
The C. J. Krehbiel Co., Cincinnatti, OH	2.0
Etheridge Co. (Techtron), Grand Rapids, MI	2.0
Artcraft Press, Waterloo, WI	1.0
GREETING CARD	**Total 922.1**
American Greetings Corp., Cleveland, OH	676.0
Gibson Greetings, Cincinnati, OH	210.6
Warner Press, Anderson, IN	12.0
The John Henry Co., Lansing, MI	8.0
Masterpiece Studios, Cicero, IL	8.5
Huston-Patterson, Decatur, IL	6.0
Shaw-Barton, Coshocton, OH	6.0
Abbey Press, St. Meinrad, IN	4.5
BOOK	**Total 912.9**
R. R. Donnelley, Crawfordsville, IN	210.0
Western Publishing, Racine, WI	107.0
Banta Company, Menasha, WI	100.0
R. R. Donnelley & Sons, Willard, OH	90.0
Ringier America, New Berlin, WI	59.0
Rand McNally & Co., Indianapolis, IN	40.0
Webcrafters, Madison, WI	39.0
Malloy Lithographing, Ann Arbor, MI	25.0
Lake Book Mfg. Inc., Melrose Park, IL	24.0
Edwards Brothers, Ann Arbor, MI	23.0
Braun-Brumfield, Ann Arbor, MI	22.0
BookCrafters USA, Chelsea, MI	21.0
Danner Press, Canton, OH	20.0
McNaughton & Gunn, Saline, MI	14.0
Worzalla Publishing, Stevens Point, WI	14.0
Callaghan & Co., Mundelein, IL	11.5
Dickinson Press, Grand Rapids, MI	11.5
Standard Publishing Co., Cincinnati, OH	11.0
The C. J. Krehbiel Co., Cincinnati, OH	10.0
Ringier America, Brookfield, WI	9.0
Thomson-Shore, Dexter, MI	9.0
Tweddle Litho, St. Clair Shores, MI	8.0
Cushing-Malloy, Ann Arbor, MI	7.7
Johnson and Hardin Co., Cincinnati, OH	7.0
Lithocolor Press, Westchester, IL	7.0
The Murray Printing Co., Kendallville, IN	5.0
Phillips Bros. Printers, Springfield, IL	3.0
Economy Printing Concern, Berne, IN	2.7
Antioch Publishing, Yellow Springs, OH	2.5
DIRECT MAIL	**Total 870.0**
UARCO, Barrington, IL	90.0
Wallace Computer Services, Hillside, IL	85.0
Moore Bus. Forms / Response, Libertyville, IL	65.0
Tech Web Inc., Wheeling, IL	48.5
Standard Register / Communicolor, Hebron, OH	45.0

Company	Sales
Brookshore Litho (Banta), Elk Grove Village, IL	40.0
Alden Press, Elk Grove Village, IL	40.0
SCM Allied Paper Inc., Dayton, OH	38.0
Petty Printing Co., Effingham, IL	34.0
Lehigh Press / Cadillac, Broadview, IL	33.0
Solar Press, Naperville, IL	30.0
General Business Forms, Skokie, IL	22.0
The Perlmuter Printing Co., Cleveland, OH	20.0
Continental Web Press, Itasca, IL	17.0
Amos Press, Sidney, OH	15.5
Promotional Graphics (UARCO), Chicago	15.0
Reynolds and Reynolds, Dayton, OH	15.0
The Segerdahl Corp., Wheeling, IL	14.0
Johnson & Quin, Niles, OH	14.0
Arandell-Schmidt Corp., Menomonee Falls, WI	13.0
The Wessel Co., Elk Grove Village, IL	13.0
E&D Web Offset, Cicero, IL	12.5
Gaylord Printing, Detroit, IL	12.0
Service Web Offset Corp., Chicago, IL	11.0
FCL Graphics, Harwood Heights, IL	10.5
Kukla Press Inc., Elk Grove Village, IL	10.0
A. J. Kennedy (Graphic Ind.), Elmhurst, IL	10.0
American Inline, Seymour, IN	9.0
Printing Service (Graphic Ind.), Madison Heights, MI	9.0
Gunthorp-Warren Printing, Broadview, IL	8.5
Redson Rice Corp., Elk Grove Village, IL	8.0
Admark Printing, Brookville, OH	7.5
Pendell Printing, Midland, MI	6.0
Bedinghaus Business Forms, Cincinnati, OH	5.5
Desaulniers Printing, Milan, IL	5.5
Hammer Graphics, Piqua, OH	5.0
Standard Publishing (Standex), Cincinnati, OH	5.0
Circuprint, Cincinnati, OH	4.5
Wicklander Printing Corp., Chicago, IL	3.5
INSERT	**Total 736.5**
R. R. Donnelley, Warsaw, IN	70.0
Valassis, Livonia, MI	45.0
Miami Valley Publishing, Fairborn, OH	42.0
Printco Inc., Greenville, MI	39.0
Maxwell, Mt. Morris, IL	35.0
R. R. Donnelley, Chicago, IL	30.0
Treasure Chest / Chicago, Elk Grove, IL	30.0
QuadGraphics, Sussex, WI	30.0
Dixonweb (Sleepeck), Dixon, IL	28.0
World Color / Salem Gravure, Salem, IL	25.0
Treasure Chest, Columbus, OH	25.0
QuadGraphics, Lomira, WI	25.0
Petty Printing, Effingham, IL	24.0
Alden Press, Elk Grove Village, IL	22.0
Moebius Printing Co., Milwaukee, WI	20.0
Maxwell, Broadview, IL	20.0
Continental Web Press, Itasca, IL	20.0
Berlin Industries, Addison, IL	16.0
Grandville Printing, Grandville, MI	16.0
Gowe Printing, Medina, OH	15.5
Perry Printing, Baraboo, WI	15.0
Regensteiner Printing, West Chicago, IL	15.0
The Segerdahl Corp., Wheeling, IL	14.0
Carrollton Graphics, Carrollton, OH	13.0
Perry Printing, Waterloo, WI	10.0
Amway Corp., Ada, MI	9.0
Circuprint Inc., Cincinnati, OH	7.5
Kukla Press Inc., Elk Grove Village, IL	7.5
The Wessel Co., Elk Grove Village, IL	7.5
Fisher Printing, Bridgeview, IL	7.0
Desaulniers Printing Co., Milan, IL	7.0
Wisconsin Color Press, Milwaukee, WI	6.0
Lehigh Press / Cadillac, Broadview, IL	6.0
The Perlmuter Printing Co., Cleveland, OH	5.0

Company	Sales
Noll Printing Co., Huntington, IN	5.0
Nosco Inc., Waukegan, IL	5.0
Etheridge Co. (Techtron), Grand Rapids, MI	4.0
Gunthorp-Warren Printing, Broadview, IL	3.5
Gaylord Printing, Co., Detroit, MI	3.5
American Inline, Seymour, IN	3.0
Nielsen Litho, Cincinnati, OH	3.0
Inco Graphics, Mason, MI	2.5
LABEL/WRAPPER	**Total 556.6**
Fleming Packaging Corp., Peoria, IL	63.0
Multi-Color Corp., Cincinnati, OH	62.0
Lorc Label & Manufacturing Co., Skokie, IL	40.5
Mid-America (Menasha), Neenah, WI	36.0
Monarch Marking (Pitney-Bowes), Dayton, OH	26.0
Perry Printing, Norway, MI	25.0
Koch Label Co., Evansville, IN	21.0
Duplex Products Inc., Sycamore, IL	20.0
TimeMed Labeling Systems, Burr Ridge, IL	19.0
Fabricon Prod. (Eagle-Picher), River Rouge, MI	18.0
Weber Marking Systems, Arlington Heights, IL	16.5
Superior Label Systems, Inc., Cincinnati, OH	16.5
W. H. Brady Co., Milwaukee, WI	15.5
Wallace Computer Services, Hillside, IL	15.0
Nosco Inc., Waukegan, IL	14.0
Data Label, Inc., Terre Haute, IN	13.0
Continental Dataforms, Elgin, IL	12.0
Ft. Dearborn Litho, Chicago, IL	12.0
Standard Register, Dayton, OH	12.0
Grand Rapids Label, Grand Rapids, MI	11.7
Kalamazoo Label, Kalamazoo, MI	10.0
Inland Printing, La Crosse, WI	10.0
MPI Label / University Park, University Park, IL	10.0
Mid-America Industrial, Neenah, WI	8.0
Shade Information Systems, Green Bay, WI	8.0
MPI Label, Sebring, OH	7.0
Apollo Labeling, Worth, IL	6.7
Oliver Products, Grand Rapids, MI	6.0
Eagle Printing (Ft. Dearborn), Coldwater, MI	6.0
Mercury Press, Forest Park, IL	5.0
General Business Forms, Skokie, IL	5.0
Huston-Patterson, Decatur, IL	2.7
Inland Lithograph, Elk Grove Village, IL	2.5
Nielsen Litho, Cincinnati, OH	1.0
ADVERTISING	**Total 524.5**
Bradley Printing Co., Des Plaines, IL	42.0
Keller Crescent Co., Evansville, IL	29.5
Banta Corporation, Menasha, WI	20.0
Neenah Printing (Menasha), Neenah, WI	20.0
American Ptrs. & Litho, Chicago, IL	18.0
Multi Ad Services Inc., Peoria, IL	17.0
William Feather Printers Inc., Oberlin, OH	16.5
Continental Web Press, Itasca, IL	16.0
Gowe Printing Co., Dayton, OH	16.0
Printing Service Co. Inc., Dayton, OH	15.5
Berlin Industries Inc., Addison, IL	15.0
Fenton Press Inc., Addison, IL	14.0
Serigraph Inc., West Bend, WI	14.0
The Hennegan Co., Cincinnati, OH	14.0
Redson Rice Corp., Elk Grove Village, IL	13.0
E&D Web Offset, Cicero, IL	12.0
Gunthorp-Warren Printing, Broadview, IL	12.0
Service Web Offset Corp., Chicago, IL	11.5
Beta-Four, Creative Graphics, Chicago, IL	11.5
Arandell-Schmidt Corp., Menomonee Falls, WI	11.0
Hammer Graphics Inc., Piqua, OH	10.5
Outlook Graphics Corp., Neenah, WI	10.0
Moebius Printing Co., Milwaukee, WI	10.0

Company	Sales
Kukla Press, Elk Grove Village, IL	10.0
Nielsen Litho, Cincinnati, OH	9.5
Great Lakes Litho, Cleveland, OH	9.5
Schiele Graphics, Chicago, IL	9.0
FCL Graphics, Harwood Heights, IL	9.0
Lithotone Inc., Elkhart, IN	8.5
General Motors Photographic, Livonia, MI	8.0
Grandville Printing, Grandville, MI	7.0
Wintor Swan Asso., Detroit, MI	7.0
The Wessel Co., Elk Grove Village, IL	6.5
Western Publishing, Racine, WI	6.0
General Business Forms Inc., Skokie, IL	6.0
Wicklander Printing Corp., Chicago, IL	5.5
Inland Printing Co. Inc., La Crosse, WI	5.0
Johnson and Hardin Co., Cincinnati, OH	5.0
Wetzel Brothers, Milwaukee, WI	4.5
Fisher Printing, Bridgeview, IL	4.5
Admark Printing Inc., Brookville, OH	4.5
Carqueville Printing, Elk Grove Village, IL	4.0
Columbia Graphics, Chicago, IL	3.5
Penton Press, Berea, OH	3.5
Neely Printing Co., Chicago, IL	3.0
The Gray Printing Co., Fostoria, OH	3.0
The Perlmuter Printing Co., Cleveland, OH	3.0
Artcraft Press, Inc., Waterloo, WI	3.0
Etheridge Co. (Techtron), Grand Rapids, MI	3.0
Inland Lithograph, Elk Grove Village, IL	2.5
Ripon Community Printers, Ripon, WI	2.0
PREPRESS	**Total 389.0**
Black Dot Graphics (Devon), Crystal Lake, IL	76.4
Schwak Inc., Des Plaines, IL	55.0
Viking Enterprises, Chicago, IL	27.5
Liberty Photo Engraving, Chicago, IL	22.0
Collins, Miller (Techtron), Chicago, IL	20.0
R. R. Donnelley, Elgin, IL	20.0
Nobart Inc., Chicago, IL	14.5
Lehigh Press / Colortronics, Elk Grove Village, IL	14.0
MCP Company Inc., Milwaukee, WI	14.0
Kieffer-Nolde (Parkway), Chicago, IL	13.5
Action Nicholson Color, Brook Park, OH	13.5
Jahn & Ollier (Techtron), Chicago, IL	13.0
Kreber Graphics, Columbus, OH	12.1
Stevenson Photo Color, Cincinnati, OH	11.0
Revere Graphics (Revere), Chicago, IL	10.0
Modern Imaging (Techtron), Grand Rapids, MI	10.0
Combined Comm. Svc., Oregon, IL	9.0
NW Colorgraphics (Banta), Menasha, WI	8.0
Reilly Graphics (Techtron), Chicago, IL	7.0
Superior / Premier (Revere), Chicago, IL	5.5
Johnson & Quin Inc., Niles, IL	4.5
Western Publishing, Racine, WI	2.5
Baldwin Cooke (Pitney Bowes), Deerfield, IL	2.0
Moebius Printing Co., Milwaukee, WI	2.0
Ripon Community Printers, Ripon, WI	2.0
DIRECTORY	**Total 276.5**
R. R. Donnelley, Dwight, IL	175.0
R. R. Donnelley, Willard, OH	50.0
Wallace Computer Services, Hillside, IL	16.0
Tweddle Litho Co., St. Clair Shores, MI	10.0
Strathmore Co., Geneva, IL	9.0
Wisconsin Color Press, Inc., Milwaukee, WI	5.0
Speaker-Hines & Thomas, Lansing, MI	4.5
Worzalla Publishing, Stevens Point, WI	4.0
Phillips Brothers, Springfield, IL	3.0
FINANCIAL/LEGAL	**Total 92.0**
Standard Register, Dayton, OH	65.0
Merrill-Young, Chicago, IL	18.0
Columbia Graphics, Chicago, IL	5.0
Rotary Forms Press, Hillsboro, OH	4.0

Figures given for sales are in millions of dollars. Data taken from Printmarkets, Trade & Technology Press, Stamford, Conn. If you'd like to rent the list of names of people in any of the printing establishments in this section, please contact Jim Long, Direct Mail Services, Cahners Publishing, 249 W. 17th St., N.Y., N.Y. 10011; or call 1-800-537-7930.